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Commitment and involvement

Environmental Report 2000



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Overview of results for 2000

Net sales, SEK M	54,064
Operating profit, SEK M	12,006
Return on capital employed, %	23,9
Investments, SEK M	47,742
Number of employees	29,868

Introduction

A new era demands a new approach

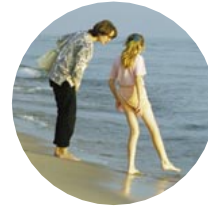
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A new era demands a new approach

Telia addresses environmental issues systematically and purposefully. Our aim is to offer useful communications services while causing the minimum possible environmental impact. At the same time, we want to explain how the use of our services contributes to a sustainable society. The goal for all our endeavors is to make the best use of resources.

During year 2000, Telia offered a number of different IT services, thereby contributing to a reduction of the environmental impact in society. People were enabled to meet via video or telephone conferences, thus saving on both travel and time. IT has also brought increased freedom, as an increasing number of people realize the advantages of shopping via the Internet and making full use of the opportunities for flexible working arrangements and distance learning.

Year 2000 brought major changes for the Group as a whole. Much effort was expended on settling the divorce arrangements after the failed merger between Telia and Telenor. We also experienced a period of intense activity during the introduction on the Stockholm exchange, which demanded a considerable amount of time and energy. As a spin-off benefit, the company was subjected to a supplementary examination from an environmental viewpoint in conjunction with the valuation process.

The importance of effective environmental management and quality assurance systems is becoming increasingly clear – systems that are designed to function independently of organizations and individuals, with the aim of increasing the strength of the environmental program.

Good values are good business

Telia has been evaluated and its share listed by several environmental funds. In order to be perceived as a sound company and retain our place in the environmental funds' rating lists in the long term, we are also expected to demonstrate that we are a socially responsible company. We need to expand our report to also include social and ethical issues. It is vital to maintain control over the entire chain, including suppliers and partners. The era is past when we could view ourselves as no more than a national player, or an international player of limited scope. Globalization ensures that our operations make an impact over a wide area. Thus, although we operate locally for the most part, we must think globally.

If we succeed in profiling Telia as a company based on a foundation of good values, and if we can communicate this successfully to the market, we will make gains on all fronts. We shall be showing that we are a company that chooses to act humanely regarding various issues.

Our perceived value is strengthened if the requirements of customers, employees, owners, suppliers and society agree with our corporate values and the benefits provided by our services and products.

This is why we integrate our ideals with our business concept, strategies and operations in such a manner as to achieve long-term sustainability.

Effective quality assurance

As a consequence of our stated strategy of focusing on core operations, parts of our operations will be outsourced, and our relations and agreements with partners and suppliers will become increasingly important. This reemphasizes the need for effective operating systems and environmental management systems such as ISO 14001. The major challenge will be to establish effective management systems that thrive and continue functioning in the midst of organizational changes.

Research a key factor

Increased use of IT as a substitute for other operations that impact on the environment is an example of the correct way in which to show environmental consideration. In this regard, research is of crucial importance for the developments we can expect to see in the future. Our own research is making a considerable contribution to new business opportunities. It also leads to increased resource efficiency, due, for example, to the development of new services, the spread of Internet intelligence and increased transmission capacity in existing networks, such as broadband in copper networks.

In addition to our own research, we make every effort to be involved in and support other research projects, such as those pursued at the International Institute for Industrial Environmental Economics at Lund University (IIIEE). The aim is to identify obstacles and encourage the development of improved meeting formats through the increased use of IT services.

We take very seriously the issue of possible health risks associated with mobile telephones, and have decided to give our support to independent research in this area, for which we have allocated SEK 3 M over a three-year period. We are also actively promoting industry cooperation on the issue of health risks.

Future challenges

Our hope is that our customers, owners and employees will be able to regard Telia as a company that shows environmental concern and social responsibility. The people working for us possess knowledge, experience and ideas. They are adept in the latest technologies, which they use wisely and creatively to develop new solutions. At Telia, people and technology go hand in hand and our business interests work in tandem with sound environmental principles.

We dedicate our enthusiasm and commitment to achieving successful progress in our environmental work. If we also manage to inspire others, we will have come a long way on the road towards a more sustainable society.

Britt Hernell, Vice President Environmental Affairs, Telia AB



"I note that we substantially reduced our air travel during the year at the same time as our own use of such services as TeleMöten increased. This resulted in both environmental and financial gains – highlighting an improvement potential that, without doubt, also exists in many other companies.

Now that much of the heavy groundwork for our environmental improvement work is complete, we have become aware of the need for a systematic approach that is independent of any organization or individual persons. As we continue with our environmental work, we intend to adopt a new, broader attitude, so that we can also include the social dimension and steer Telia towards sustainable development."

Marianne Nivert, Chief Executive Officer, Telia

A systematic approach gives strength

Reorganizations and outsourcing highlight the need for a systematic approach that is independent of external changes and the redeployment of personnel. Such a system provides an element of security – environmental work becomes an ongoing process. ISO 14001 certification quality-assures the system and contributes to the value of the company. Life cycle assessments are one way of demonstrating the environmental potential of the services offered.

The foundation for Telia's environmental work was laid in 1994 when an initial environmental review was performed. This showed that the main factors contributing to the Group's environmental impact are vehicle use, travel, transports, energy consumption and consumption of materials. The environmental review was performed with the assistance of the IIIIE at Lund University.

Executive responsibility for environmental work lies with all managers in the line organization, while the environmental manager is responsible for coordination and follow-up.

Each management group is required to designate a person responsible for ensuring that environmental issues are taken into account. All companies and units must also have an environmental coordinator. Work is followed up by the environmental manager, who is responsible for reporting to Group management and also advises the CEO regarding Group-wide environmental issues.

Management system adds value

ISO 14001 is the key reference source for Telia's environmental work, but no Group-wide decision regarding certification has been made as yet. Decisions in this area will be made by the individual companies and units. In order to cope with changes and overcome organizational limitations, we shall investigate the possibilities for certifying a business process. The importance of quality-assured environmental controls is also becoming increasingly apparent as we proceed with the streamlining of operations, with increased outsourcing as a result. This in turn leads to a focus on partnership and quality-assured agreements with suppliers and partners.

The individual companies have made varying amounts of progress towards implementation of environmental management systems (see table on pages 8-9). Of the four companies that have decided to seek certification, three have begun work, with varying degrees of progress.

One company, Swedia Networks, was certified during the first quarter of 2001, while Carrier & Networks (Skanova) will obtain certification during the first six months of the year.

"When Det Norske Veritas performed an audit prior to our certification process, they noted that we had already been working in accordance with ISO 14001 for several years, which shows that certification can be a simple and inexpensive process if you take the right course of action from the start."

Catherine Karagianni, Environmental Manager, Carrier & Networks

IN good company received certification during 2000, prior to being outsourced to a new company in which Telia is not a majority owner. Certification was a quality-enhancing factor that contributed to the company's value.

Reporting principles

An annual follow-up of environmental work within the Group is carried out in conjunction with the collection of data in preparation for the environmental report. The follow-up is performed on a company/unit basis with the aid of our internal auditors.

The purpose of the environmental report is to describe the Group's environmental work and point to the improvement potential in customer operations and the business opportunities that exist for Telia. Our aim is to clarify our approach to the development of a sustainable society. The environmental report covers all the operations of Telia's wholly owned companies in Sweden. The results of the environmental work performed during 2000 are reported at company level, except for a few cases where they are reported at the business area level (see table on pages 8-9). Separately reported units are those with a substantial environmental impact due to their size and/or their operations.

Preparations are in hand for the inclusion of operations outside Sweden in the report. Final approval of the environmental report rests with Group management.

This is Telia's fifth annual environmental report. Data collection is a process that is continuously improving. It is a creative process which, in itself, contributes to the creation of awareness and clarity in the organization.

The objective is to quality-assure incoming data and submit the environmental report to external examination. Quality assurance ensures the traceability of documentation and competent information sources. All of the work on the report was examined on an ongoing basis by Telia's external auditors, Ernst & Young, who also examined the finished environmental report. All collection and storage of data is handled digitally.

Permits not required for Telia's operations

None of Telia's current operations require permits in accordance with the Swedish Environment Code. Certain cable-laying operations may be covered by the regulations for operations in or near water. Phasing-out of freons is progressing in accordance with the legal requirements.

Under the terms of the ordinance concerning producer responsibility for electronic goods, which comes into force on July 1, 2001, Telia will bear producer responsibility for the telecommunications equipment it sells. A project group within Telia is currently working on implementation of the ordinance and practical solutions for collecting used equipment.

Lead cables, impregnated poles and locations where poles have previously been impregnated could still be perceived as environmental problems.

- No new lead-covered cables are installed today. The Swedish University of Agricultural Sciences (SLU) has conducted an investigation to determine whether the old cables buried in the soil have any environmental impact. The investigation indicates that such cables do not present any environmental problems.
- There are approximately 2.3 million impregnated poles in Telia's telephone network. SLU also conducted examinations to measure the spread of impregnating agents from the poles into the surrounding soil, concluding that the spread was negligible. All poles purchased by Telia are impregnated with creosote at environmentally certified plants, and the poles that are taken down are returned to the present pole supplier.

- Telia's predecessor, Televerket, conducted impregnation operations at its own plants until the mid-1980s. Today, we have no legal responsibility of which we are aware for the cleanup of sites where pole impregnation was previously carried out.

Environmental product declarations and life cycle assessments confirm environmental benefits

For several years we have been working with life cycle assessments, the purpose of which is to verify and promote the environmental advantages of IT products and IT services, as well as identifying improvement areas.

During the year, a life cycle assessment of fixed telephony was performed. The study concluded that the parts of the telephone network that cause the greatest environmental impact are the access network and the local stations. However, the environmental impact resulting from the activities of personnel is even more significant, mostly deriving from the effects of travel using company vehicles and business travel by air.

Acting on Telia's initiative, IT-Företagen decided during the year to adopt an industry-wide environmental product declaration (EPD) for telecommunications equipment. The purpose of an environmental product declaration is to make it easier for customers to obtain information about the contents of products.

We also initiated a project to develop, on behalf of the Swedish Environmental Management Council, product-specific rules for certified environmental product declarations of IT services. The first service to be covered by a declaration is Telia Centrex, a virtual telephone switchboard in Telia's network. As far as we know, we are the first in the world apply an EPD to a service. The declaration is expected to be completed during the current year.


EPDs have been produced for all cables and channelization included in the telecommunications network, in order to be able to provide information about the contents. Cables that form part of a premises network are excepted.


Life cycle assessments performed to date

1997	Videoconferencing, mobile telephony
1998	TeleSvar, cable laying
1999	Telia Centrex, radio links, IP telephony
2000	Fixed telephony

Survey of environmental work in companies and units during year 2000

	Carrier & Networks business area	Business solutions business area					People solutions business area	Mobile business area	Enterprises business area				
	Carrier & Networks	Telia Företag AB*	Telia MegaCom AB*	Telia Publicom AB*	Telia TeleCom AB*	Telia Promotor AB	Telia Nära AB	Telia Mobile AB	Swedia Networks AB	Telia Företagservice, (Relacom AB)	Neterna AB	Telia Installation AB	Telia Systems AB
Number of employees paid monthly, Dec. 2000	2,916	←		2,330		→	4,030	1,521	2,398	1,116	2,429	680	365
Initial environmental review conducted, year	1998	no	no	no	1998	no	2000	no	1999	no	2001	no	no
ISO 14001 environmental certification planned to be completed, year	2001	no	2001	no	no	no	no	no	2001	no	2001	no	no
Environmental representative appointed in management group	yes	no	no	yes	no	yes	yes	no	yes	yes	yes	yes	yes
Environmental coordinator appointed	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Procedures for monitoring environmental legislation	yes	no	yes	no	yes	no	yes	yes	yes	no	yes	no	yes
Environmental objectives in business plan for 2000	yes	no	yes	yes	no	no	yes	yes	yes	no	no	yes	no
Environmental plan for 2000	yes	no	yes	yes	yes	no	yes	yes	no	no	yes	no	yes
Environmental objectives in business plan for 2001	yes	-	-	-	no	yes	yes	yes	yes	yes	yes	no	no
Environmental plan for 2001	yes	-	-	-	no	no	yes	no	no	no	no	no	no
Environmental requirements and inquiries when purchasing	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Environmental requirements and inquiries from customers	yes	yes	yes	yes	yes	no	yes	yes	yes	no	yes	yes	yes

 Not included in last year's review

 Change of answer from previous years

*Operation restructured
Company placed in a new business area or no longer in Group

The table surveys companies in accordance with the corporate structure during year 2000. For information on the new corporate structure after April 1, 2001, see the annual report or visit www.telia.com. The total number of personnel employed in the subsidiaries shown in the matrix above amounts to 22,587, or 75% of the Group total.

During 2000, 550 employees completed the environmental training program, bringing the total number of persons who have taken the course to 8,250 persons, equivalent to nearly 40% of all employees in the reported companies. A total of about 85% of managers within the Group have received special environmental training.

Enterprises business area

	Telia IT-service AB	Respons AB	ComHem AB	Trading AB*	Telia Fastigheter AB	Telia Handel AB	Telia Research AB	Telia Validation AB	Unite AB	Prosoft AB
	1,072	903	214	8	31	277	293	517	75	1,136
	no	no	no	no	no	no	no	no	no	no
	no	no	no	no	no	no	no	no	no	no
	yes	no	no	no	no	yes	yes	yes	yes	yes
	no	no	no	yes	yes	yes	yes	yes	yes	yes
	no	yes	no	no	yes	yes	no	no	no	no
	no	no	no	no	yes	no	no	no	no	no
	no	no	no	no	no	yes	yes	yes	no	no
	no	no	no	no	yes	yes	no	no	no	no
	no	no	no	no	no	no	no	no	no	no
	yes	no	no	yes	yes	yes	yes	no	yes	no
	yes	no	no	no	yes	no	no	no	no	yes



"We still have some way to go before we fulfill the ambitions in our environmental policy. We must improve in this regard, since we can note that an increasing number of customers inquire about our environmental performance and how we act in the community. People are also beginning to discover that our services could be one of the solutions to various environmental problems, so there is unquestionably business potential here waiting to be utilized."

Marianne Nivert, CEO, Telia

While the systematic approach set out in ISO 14001 is a goal toward which our environmental work strives, much still remains to be done. Only five companies have carried out an initial environmental review, for example. Eight companies have no representative with responsibility for environmental issues in the management group, and nearly 50 percent of the companies have still not defined their environmental objectives for 2001. Fourteen companies report having received questions/requirements from customers.

Summary of environmental objectives in the business plans of Group companies and units, 2000



Objective (Objectives are not presented in order of priority)

Environmental requirements for all purchases.

High level of environmental competence.

ISO 14001 certification.

At least 55% of employees shall view Telia as an environmentally aware company.

At least 40% of the general public shall view Telia as an environmentally aware company.

45% of employees shall have received environmental training.

Customers shall view Telia as an environmentally aware company.

Internal requirements for integrating the environment in the product development process.

Environmental aspect shall be obligatory in customer offerings.

Use own services in information and marketing campaigns.

All employees shall have completed environmental training.

60% of customers shall view Telia as an environmentally aware company.

80% of employees shall view Telia as an environmentally aware company.

10% reduction in CO₂ emissions from business travel.

Environmental labeling of mobile product portfolio.

Customers shall view Telia as an environmentally aware company.

Reduction in energy consumption for operation of mobile telephone net

Reduce carbon dioxide emissions by 10% compared with 1998 levels.

Reduce residual waste by 30%.

Source-sorting in offices.

Reduction in paper consumption.

Environmental training for employees and contractors.

Meet customers' environmental requirements.

Design and function of premises shall fulfill environmental policy.

Contractors' work methods and choice of materials shall be coordinated with Group environmental policy.

Company/unit	Status	Comments
Carrier and Networks business area	Objective achieved	In accordance with directives.
	Objective achieved	More than 95% have environmental training.
	Work in progress	Proceeding according to plan.
Telia Nära	Objective not achieved	Human capital measurement canceled.*
	Objective not achieved	Market capital measurement canceled.*
	Work in progress	30% have completed training.
Telia MegaCom	Objective not achieved	Market capital measurement canceled.*
	Work in progress	Joint requirement from marketing companies.
	Objective not achieved	No practical way of measuring.
	Work in progress	Activities initiated.
Telia PubliCom	Objective not achieved	Training program being revised.
	Objective not achieved	Measurement not carried out.*
	Objective not achieved	Measurement not carried out.*
Telia Mobile	Objective achieved	Business travel has declined by about 25%. TeleMöte telephone conferences have increased.
	Objective not achieved	Follow-up not completed.
	Objective not achieved	Follow-up not completed.
Swedia Networks	Objective not achieved	Follow-up not completed.
	Objective achieved	Objective achieved.
	Objective not achieved	Objective to be revised.
	Work in progress	Completion in 2002.
Installation	Work in progress	Completion in 2002.
	Work in progress	Completion during 2001.
	Objective achieved	
	Work in progress	
Telia Fastigheter	Work in progress	

Further environmental objectives can be found in environmental plans and program.

Human and market capital surveys are canceled until further notice.

-  Objective achieved
-  Work in progress
-  Objective not achieved



Dollars and cents

Environmental costs are not normally treated as separate items but are included as part of the other costs for operations.

Costs in 2000, SEK 000s

Environmental communication	4,500
Environmental management	425
Life cycle assessments	270
Environmental training	2,000
Research and development	500
Phase-out of freons	18,000
PCB inventories	135
Handling of returned materials	7,100
Environmental charges	90
Other operating expenses, Corporate Environment Staff, excl. personnel costs	1,700
Total	34,720

The tables show costs that are directly linked to the environment. Personnel costs and time expended on training, for example, are not included. Time directly spent on environmental work (environmental coordinators, etc.) is estimated at ten man-years.

Since plans for the phasing-out of freons are not yet finalized, a cost estimate cannot be made.

Estimate of major costs in 2001, SEK 000s

Research and development	3,000
Environmental training	1,500
Environmental management	1,500
Environmental communication	5,500
Business development, IT environment, various external projects	3,000



Practicing what we preach

Internal use of the Telia TeleMöten conferencing service continues to increase. More and more Telia staff throughout Sweden are realizing that use of the service both saves money and spares the environment. Many users also experience an enhanced quality of life and increased efficiency in their work.

Our ambition within the Group is to use our own services as a way of reducing our own environmental impact and serving as a model for both customers and society in general. Expressed in simple terms, we aim to practice what we preach. Increased use of our services is an effective way of making better use of resources such as time, money and personal freedom.

We can observe clear trends regarding the use of TeleMöte, which has shown an increase for the third successive year. Usage of Telia MultiMöte, including videoconferencing, has increased by nearly 100% during the past four years. However, Telia's own use of MultiMöte has declined by 10%. The likely explanation is that Telia TeleMöte is regarded as a fully satisfactory alternative.

The phenomenon of flexible working is also continuing to expand, with employees using Ringin to connect up from home, work centers and customer premises.

Telia Nära's focus on more efficient meetings proves profitable

Telia Nära has systematically reviewed its routines for meetings, which are based on a combination of IT-based meetings and

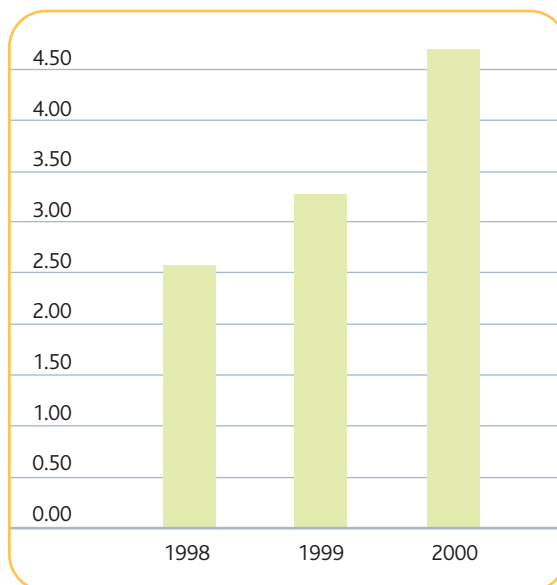
traditional physical meetings. The 35 Telia Nära units are located throughout Sweden, which could easily give rise to a substantial amount of business travel, but extensive use of TeleMöte and Telia MultiMöte ensures considerable savings in terms of time, resources and money. Cutting down on travel also reduces environmental impact. The potential exists to save as much as SEK 2 M annually on the cost of quarterly follow-up meetings.

Fifty to sixty persons can participate in the same TeleMöte call when the purpose is to rapidly pass on information. When a MultiMöte conference call is used, up to 15 persons can participate.

The experience to date has been positive – many participants feel a stronger motivation and are better prepared for meetings conducted in this way. When fewer time-consuming journeys are required, more time is available for other activities. Another possible benefit is that people could find that they can continue living in their home communities.



Ringin: Connected time, millions of hours/year



The number of employees who can use Ringin rose from approximately 13,000 to around 18,000 during the same period, while the number of **active** users rose from about 9,500 to 11,500. The figures for 1998-1999 have been adjusted in accordance with the calculations for the current year.

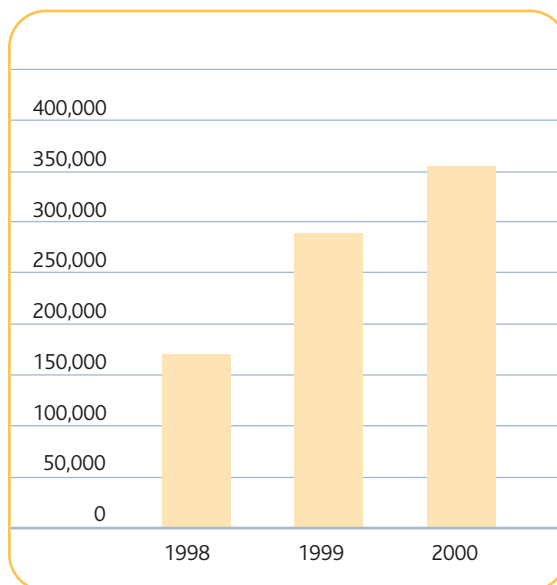
Based on the experience gained to date, Telia Nära has adopted the following principles for meetings:

Participants need to be physically present for meetings that require extended discussion and consensus.

IT solutions should be used for operational follow-ups, presentation of final reports and exchanges of information.

Physical meetings within Telia Nära's larger networks must be approved in advance by the management group.

Number of participants in internal meetings held via Telia TeleMöten





Good can become even better

The systematic approach to purchasing procedures is a key strategy for success with environmental work. It affects the entire process of producing services for our customers. The number of business trips by air declined by nearly 20%.

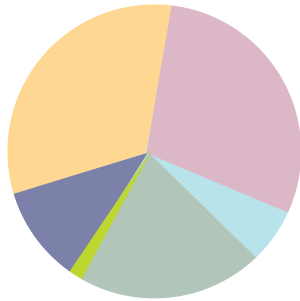
Telia's production can be seen as a flow – a flow of services which in itself causes little environmental impact, but which requires energy, transports and materials. One way of addressing the problem is to begin in the purchasing area. Since we purchase large volumes of goods and services, as well as being the largest investor in the Nordic region, it is important that we continuously develop the environmental requirements contained in our purchasing procedures. Another way of reducing the number of factors that cause an environmental impact is to attempt to change our

attitude to travel while continuing to optimize logistics.

In the long term, we will also need to formulate a future-oriented, sustainable vehicle policy. Enhancing energy efficiency is a constantly ongoing process.

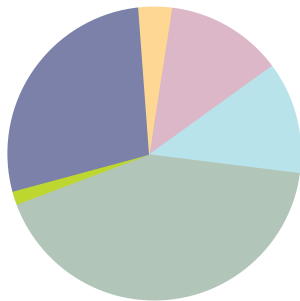
Our concentration on core operations, which involves outsourcing operations and forming partnerships, does not change our ambitions in the environment area. On the contrary, environmental requirements exist, and will continue to exist, for those units that are directly involved in operations.

Energy use during 2000, GWh



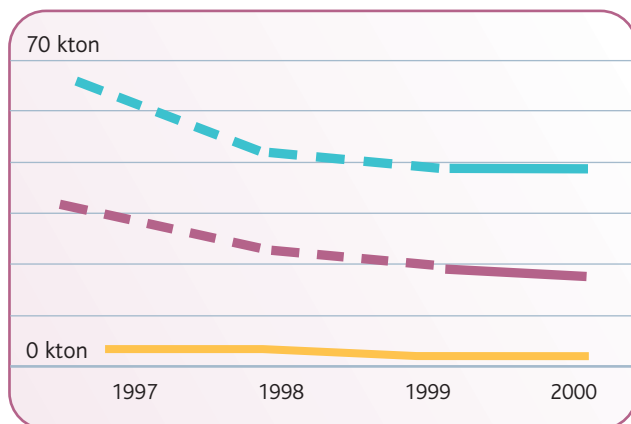
Premises	290	Electricity, oil and district heating. Based on invoicing records, office floor area in use and the REPAB standardized industry index.
Contractors	49	Based on invoicing records. Last year's usage was overestimated.
Vehicles	165	Production vehicles, work machines, company cars and privately owned cars used for business purposes.
Transport of goods	5	Includes telephone directories (24,000 tons).
Business trips	123	By train, air, airport buses, airport taxis, taxis and rental cars. The number of journeys by air declined by nearly 20%. The reported figures now include so-called "ticketless travel."
Network operation	270	Does not include customers' electricity use.
TOTAL	902 GWh	

CO₂ emissions



Premises
Contractors
Vehicles
Transport of goods
Business trips
Network operation

CO₂ emissions from passenger transports



The number of employees only changed marginally during the period.

■ Air travel	■ Train travel
■ Cars for official use/company cars/private cars	

CO₂ emissions during year 2000

CO₂ (kton)

Trains	28,000 journeys	0.00007
Domestic flights	94,000 journeys	18.6
International flights	13,500 journeys	6.2
Airport buses	1,350 journeys	0
Rental cars	7,800 journeys	0.6
Taxis (including airport taxis)	197,000 journeys	0.8
Vehicles and work machines	8,260 units	47.6
Goods transports	70,000 tons	1.3
Contractors	712,000 hours	13.0
Premises	765,000 m ²	13.9
Network operation	49,100,000,000 traffic minutes	3.0
TOTAL		105

CO₂ emissions

We intend to report those parts of total CO₂ emissions that are relevant for Telia's operations. Outsourced operations are included to the extent they are involved and if it is possible to report them. Travel and the like for consultants engaged by the Group are not reported.

A number of different initiatives have been taken over the years with the aim of reducing emissions. We have tested electric cars and vehicles fueled by LPG, alternative fuels (biogas, ethanol) and so on. Among other results, the tests have revealed a need for further technical development and the establishment of an infrastructure. When Telia purchases vehicles, the fuel consumption of the type of vehicle in question is one of the selection criteria. The company that supplies most of the vehicles leased by the Group holds ISO 14001 certification.

In 1999, together with Schenker-BTL, we introduced a new solution for internal logistics. The new logistics solution is based on the intelligent use of IT solutions. Transport volumes were reduced by minimizing warehouse inventories, coordinating transports and planning travel routes more efficiently. CO₂ emissions from goods transports declined by 25% from 1998 to 1999, corresponding to a reduction of 150 tons per year, and emissions have been kept down to this level.

Reduced emissions have also featured in the environmental plans of Telia's subsidiaries. In certain locations (Swedia Networks and Telia Nära) training in environmentally compatible driving methods – eco-driving – has been provided, resulting in a 5-10% reduction in fuel consumption during the trial period.

During 2000, Telia initiated a project based on graduate work at the International Institute for Industrial Environmental Economics at Lund University (IIIEE). The aim of the project is to encourage employees to choose alternatives to physical travel. The project is being conducted at two subsidiaries – Telia Research and Telia Nära – and includes identifying possible obstacles and a survey of the rules for salaries and expense allowances, among other areas of focus. The results are expected to lead to a change in attitudes, behaviors and the Group's regulatory systems, which should translate into reduced travel volumes. The project will provide a clear example of the "practice what we preach" principle and will serve as a reference project for the manner in which IT can contribute to sustainable development.

Telia MegaCom took the initiative for a cooperative project aimed

at avoiding traffic problems and parking chaos in Stockholm's Nacka Strand district. The project, which began in 1999 and is scheduled to continue until 2002, goes by the name CommIT. Together with Ericsson, AP-fastigheter and Apoteksbolaget, Telia has undertaken to develop and support transport alternatives for Nacka Strand. The potential for rational utilization is based largely on various IT solutions. CommIT's overall environmental goal is to reduce carbon dioxide emissions, while a mix of the various alternatives is expected to turn the area into a model for sustainable transports.

During 2000, Telia broadened the ownership of its Eniro subsidiary, which produces telephone directories among other operations. Previously, Telia worked for several years towards a more environmentally compatible telephone directories by applying such measures as Swan labeling, selective distribution, and publishing the telephone directories as a CD-ROM and on the Internet. The results of the project will continue to be monitored.

Handling of waste and residual products

Waste and residual products comprise consumable materials and waste from day-to-day operations. Large volumes of waste and residual products can arise as a result of technology shifts, construction

Recycling of lead cables

During 2000, Telia delivered 1,500 tons of lead-sheathed cable to ArvaMet, the Group's materials-recovery contractor. The recovery process at Rönnskär Mill produced 883 tons of lead and 543 tons of copper.

If we instead considered the idea of extracting this amount of metal from virgin ore, it would correspond to a total of 180,000 tons of ore.

To quote the manager responsible for lead recovery at ArvaMet, Christer Gyllengahm:

"I can assure you that 180,000 tons of ore is an awfully big pile."

of new networks and new investments. The objective has been to establish environmentally efficient systems.

All waste materials and residual products are handled by environmentally certified contractors.

Source-sorting takes place in all of Telia's larger office premises and is handled by Telia's workplace support unit. Waste is source-sorted into six to ten categories.

More than 200 environmental stations, in three different sizes, are distributed throughout Sweden to serve field operations, with waste sorted into between two and thirteen categories. This system ensures uniform handling of waste products. When major demolition and expansion projects are undertaken, containers are hired in accordance with established routines. The residual products are sorted into up to 13 different categories.

The ordinance concerning producer responsibility for electronic goods comes into force on July 1, 2001. A project has been initiated with the task of clarifying the situation regarding producer responsibility at different subsidiaries within the Group. Also included in the project is the development of practical collection methods in cooperation with contractors.

All our stores have systems for taking back products from customers – including mobile phones, ordinary phones, answering machines and batteries. The full implementation of producer responsibility for electronic products could change this situation.

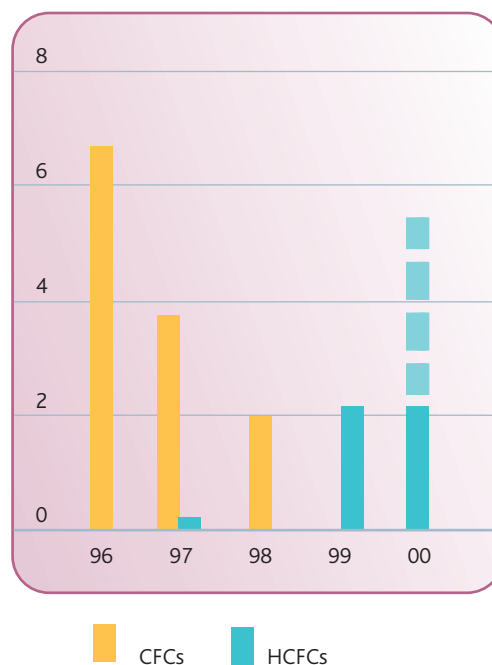
During 2000, some 7,000 computers were handed in to Smålandsbörsen, a subsidiary that Telia has now sold. Approximately 70% of the computers were reconditioned, then reused by municipalities, schools and companies.

Incidents during the year

The Environmental Board in the community of Örebro previously ruled that a lead cable that was no longer in operation should be dug up and removed. Following an investigation carried out by the Swedish Corrosion Institute, the Environmental Board decided to rescind the order. We have given an undertaking to continuously monitor ongoing research in this area.

There were several instances of customers and contractors making complaints concerning "poles weeping creosote." The cause was traced back to problems with the pole supplier's production plant, as well as shortcomings in Telia's control procedures. Substandard poles have been

Phase-out of freons (tons)



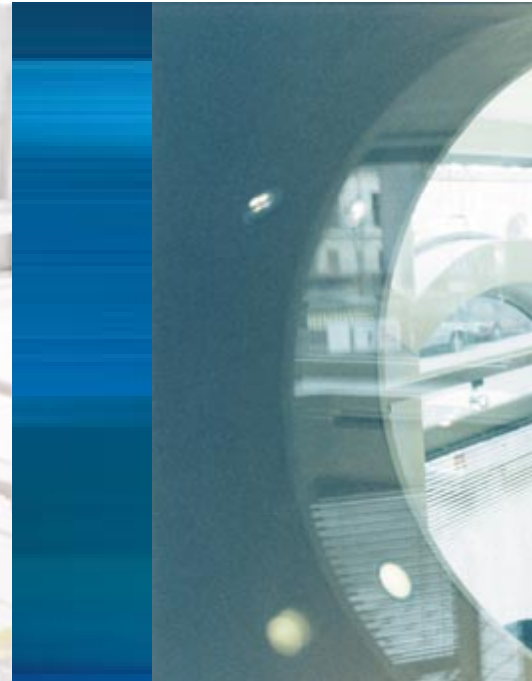
During 2000, Telia planned to phase out some 5.5 tons of freons at a cost of approximately SEK 38 M. The build-out of broadband networks has slowed down the phase-out of freons (HCFCs), with the result that the total amount phased out during the year was only about 2.2 tons, at an estimated cost of around SEK 18 M. Future plans have been postponed, and a total phase-out is expected to be completed by year-end 2002.

returned to the supplier and measures are in progress to correct any other shortcomings.

The Fishery Conservation Association for Central Sweden accused Telia of not complying with the rules set out in the Swedish Environment Code when carrying out construction work in and near water.

A number of appeals to the Government regarding the granting of building permits for aerial masts resulted in rulings in Telia's favor.

Complaints were received about the untidy state of several environmental stations for the collection of returned materials.



New business opportunities

The future lies with IT. So far, we have barely scratched the surface of the enormous potential in this area. Together with the business community and the public sector, we can explore the wealth of possibilities offered by IT, opening up the prospect of both environmental and financial gains – for all parties

More and more people are becoming aware that IT solutions are good for the environment. IT could well provide the answer to the dilemma of how to cope with the crush of people and traffic in the major cities and the effects of carbon dioxide emissions. IT could also contribute to increased resource efficiency as products are replaced by services and the costs for the legally required systems for the disposal of electronic scrap decline.

Dialog creates opportunities

Many people feel a commitment to the environment. What we hope to see is an increased realization that the IT sector is not only good for the environment but also creates new business opportunities. Telia has both resources and know-how. We can be part of the drive for sustainable development, thanks to the products and services that we

offer. A current example is our huge investment in broadband, which we believe will become increasingly significant in the future.

We face environmental demands from both society and the business community. By maintaining close cooperation with demanding customers, we lay the foundations for future business. To highlight IT's environmental potential, we have been a driving force in promoting dialog with the business community. During 2000, we were involved in two of the dialog projects initiated by the Swedish Environmental Advisory Council concerning future housing/living and future commerce. Both projects present a picture of a future society and describe the measures needed to achieve it. In both cases the IT sector has contributed to new vistas. The projects will continue during 2001, with the aim that they will lead to concrete agreements in due course.



The traffic chaos that didn't happen

On February 25, 1999, Sweden was hit by a widespread strike as the country's bus drivers resorted to industrial action. There were fears that chaos would ensue in Stockholm when many people would be forced to drive their cars to work instead of using public transport.

Although the strike lasted two weeks, the anticipated increase in traffic never happened – at least in Stockholm, where the media had painted the grimest scenarios. There was no sign of traffic chaos, even in the heart of the city. How could this be?

Traffic increased elsewhere instead – via the telephone network. All indications suggest that many people decided, the day before the strike, to hook up their work telephones to their homes and then con-

nect to their companies' internal networks the next morning. Many of Telia's modem pools were handling double the normal load. The statistics also tell us that most people logged in punctually at 8:00 a.m.

What these events show is that, given the chance, people are willing to change their behavior patterns by reducing their daily travel, thereby gaining more control over their time and enhancing their quality of life. In the long run, this also brings positive gains for the environment.

If we view road traffic and IT in a holistic perspective – as two means of communication on an equal footing – it becomes clear that the most important thing is the information that is communicated.



Sharp increase in e-commerce

"Shopping for everyday needs on the Internet is becoming an increasingly common practice," says Bho Wilhelmsson, who is in charge of Express Food, B&W's Internet shopping system.

"A comparison with the sales at B&W in Täby, north Stockholm, shows that Internet sales account for more than 10% of total sales from Monday to Friday. Planned new investments include a special automated warehouse capable of serving an area with 300,000 households.

"The new automated warehouse needs only half the floor area required for a store," Bho explains. "This, combined with other savings, means that prices are planned to be 7-10% lower than in a traditional supermarket."

Bho predicts that by 2005 at least 40% of all local shopping will be transacted electronically.

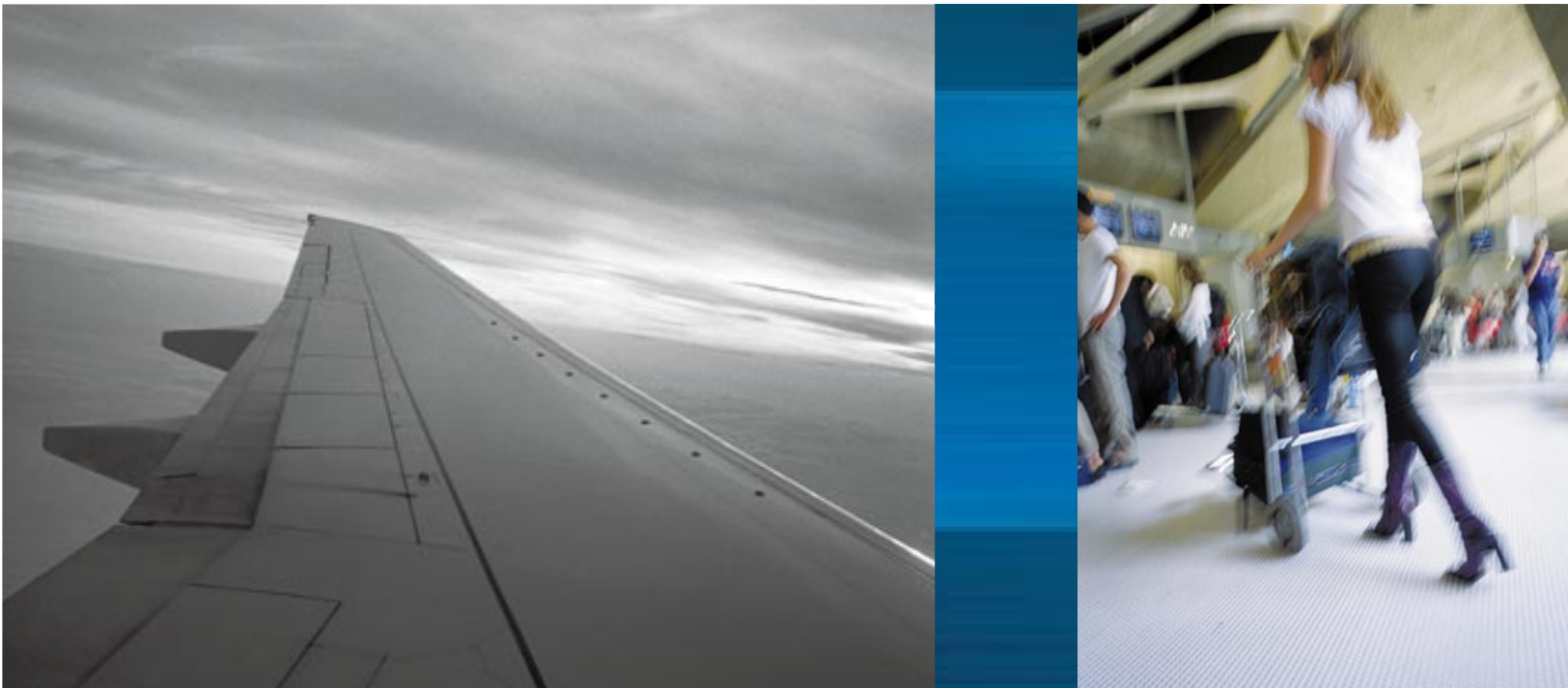
Based on estimated savings on transports corresponding to an average journey of 15 kilometers each way twice a month for 300,000 customers, the reduction in Stockholm's traffic would amount to a decrease of nearly 200 million kilometers traveled per year.

Ericsson focuses on videoconferencing

Ericsson's new head office in London has 14 mobile videoconferencing facilities. And in the management offices are three walls consisting of video screens that provide videoconferencing links to Ericsson's offices in Stockholm, Dallas and Tokyo respectively.

In addition to reduced emissions, the use of videoconferencing also enables substantial cost savings to be made. In one year, Ericsson saved approximately SEK 3 M, during a week of budget preparation work, by using new meeting technology. A complete videoconferencing facility costs around SEK 300,000 – an investment that can be recouped in 22 work days. This means that every videoconferencing unit creates annual savings amounting to SEK 3 M.

Today, between 5 and 10% of all meetings within Ericsson are conducted in the form of videoconferences.



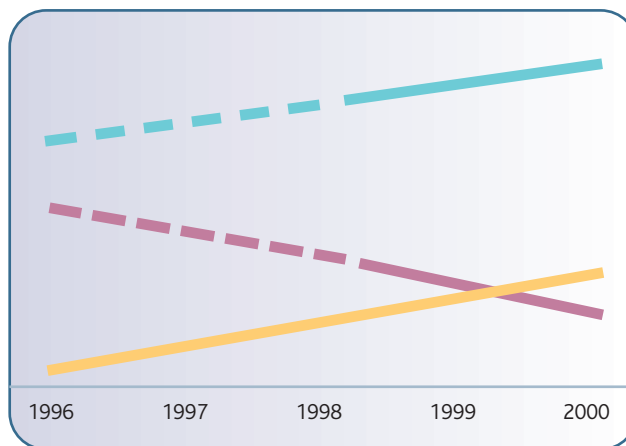
We have performed a number of different life cycle assessments in order to verify and underpin the environmental benefits of IT products and IT services.

We have also initiated a project to draw up environmental product declarations for IT services certified by the Swedish Environmental Management Council. The first service to carry a declaration is Telia Centrex, the virtual telephone switchboard in Telia's network.

During 2000, Telia initiated an industry-wide environmental product declaration for telecommunications equipment, and declarations have already begun to be applied to the first group of products.

During the year, a life cycle assessment for fixed telephony was performed. One annual subscription (including Internet use, etc.) gives rise to carbon dioxide emissions corresponding to driving a car for 60-80 kilometers.

Schematic diagram showing development trends for air travel and meetings via Telia TeleMöte internally within the Group.



The number of employees changed only marginally during the period in question.

- Number of journeys by air within Telia
- Number of participants in meetings via TeleMöte
- The number of journeys by air within Sweden shows a general increase of approximately 5-6% per year



Cooperation that crosses all boundaries

Telia is continuing to share its experience with other telecom operators in Europe. Among other areas of focus, we are cooperating on research into electromagnetic fields. We are also one of the official national suppliers during Sweden's EU presidency, when the environment is one of the key issues to be addressed.

Telia participates in an environmental collaboration involving Europe's telecom carriers within the framework of ETNO (the European Public Telecommunication Network Operators' Association). During 2000, the number of participants in the cooperative endeavor increased to 24. The aim of the collaboration is to share experience and apply various approaches to strengthen the IT sector in order to create the conditions for sustainable development within society. ETNO's work is conducted within an EU perspective and the Association is the reference body for many issues.

Telia is one of a number of major companies participating in a network with the working name "Fossil-free Business," which was initiated by the Swedish Society for Nature Conservation. The purpose of the network is to share experience concerning various methods of reducing fossil fuel use in the Stockholm region– with the focus on transports.

Telia has a representative on the IT-Företagen's Environment Council. Among other roles, the Council serves as the reference body for legislative issues. It has been an active contributor to the ongoing program to develop an industry-wide system for the collection of electronic scrap – an endeavor that is fully in line with the legislation concerning producer responsibility for electronic products.

Together with other customers and suppliers of travel services, we participated in a joint program coordinated by the IIIIEE at Lund University aimed at drawing up a uniform requirement-specifications standard for offerings of travel services, based on environmental considerations, among other criteria.

[Open information about electromagnetic fields](#)

The debate concerning the possible risks associated with mobile telephony continues, focusing on the risks associated both with mobile phone use and with being in close proximity to base stations. A high priority has been assigned to the issue, and we have been working systematically for several years on the health and safety aspects of mobile telephony.

A few years ago, in order to gain a broad overview of the information currently available, Telia instituted a scientific council, consisting of established researchers, which continuously discusses and presents the latest information available.

There is widespread public concern about the possible dangers of mobile telephony despite the fact that the combined scientific research in this area has not produced any unequivocal evidence to this effect. We view this concern with the utmost seriousness. Our approach is to show professionalism, honesty and empathy. We do so by actively participating in the public debate. During 2000, we organized mass media seminars, discussions with the Swedish Association for the ElectroSensitive, dialogs with trade unions, information campaigns directed at municipalities, internal training on electromagnetic fields, and other activities. We are currently taking the initiative to broaden the scope of this work into an ETNO collaborative project.

[IT – Sweden and the EU presidency](#)

Sweden is leading work within the EU during the first six months of 2001. The environment is one of three prioritized areas during Sweden's presidency of the EU. During autumn 2000, Telia accepted the distinction of being one of the Official National Suppliers during Sweden's presidency. We were pleased to be given the opportunity to present Sweden as one of Europe's leading IT countries, particularly in view of our major role in developing "The Wireless Valley." Our contribution includes providing access to advanced videoconferencing facilities for preparatory meetings, as well as Telia HomeRun – our wireless broadband Internet package. An innovation in the context of EU deliberations is that Anna Lindh, Sweden's Minister of Foreign Affairs, has decided to conduct individual dialogs with her ministerial colleagues in the EU using videoconferencing technology – an approach that has yielded gains in terms of travel and time, and also for the environment.

Environmental report attestation

To the readers of Telia's Environmental Report 2000.

At the request of Telia AB, we have reviewed Telia's Environmental Report for 2000. The Environmental Report, for which Company management is responsible, was prepared at corporate level by the environmental unit.



Approach

The scope of our review, which was determined in consultation with the customer, involved focusing mainly on reviews of internal controls of information collection and the processing and presentation of information in the Environmental Report.

Basis of our review

Our review mainly encompassed the following five core areas:

1. Discussions with the executives responsible concerning the focus, contents and scope of environmental work.
2. Discussions with the executives responsible concerning the Environmental Report and the background information for the statements made in the report.
3. A review of the principles applied for selecting information and presenting it in the Environmental Report.
4. A review of the systems used for collecting and processing environmental information. This review encompassed examination that Telia's

- * chosen principles for selecting subject areas, formulating questions/forms and methods for requesting environmental information have been adhered to,

- * systems for the digital collection of information from the relevant data providers are satisfactory,
 - * methods are used to establish that the information provided corresponds to actual conditions or to formal decisions regarding future actions,
 - * methods for reconciling and assessing the reasonability of the information received are reliable,
 - * methods for digitally storing, correcting, supplementing, processing, updating and compiling the information received are reliable,
 - * methods are in place for documenting the completed processings and for ascertaining that the audit trail is complete.
5. Review that the data for 2000 were compiled and processed in accordance with the selected principles and methods on the basis of the data provided by the units concerned.

Conclusions

Our overall assessment is that the information reported in the Environmental Report has been compiled, selected and presented in a correct manner based on the methods and principles applied by Telia for the collection of information. The review did not result in any findings that would indicate that the examined information is misleading.

Stockholm, March 22nd 2001
Ernst & Young AB



Birgit Flening
Authorized Public Auditor

Glossary and links

Biogas Gas formed when biological material decomposes. Consists mainly of methane.

Broadband General term for high-speed transmission (more than 2 Mbit/s) of data, voice and video.

Carbon dioxide – CO₂ Formed during combustion. Carbon dioxide is the most important of the greenhouse gases, accounting for approximately 50% of the greenhouse effect.

CCA (copper, chromium, arsenic salts) Used in wood preservatives. CCA-impregnated wood must only be burned in plants with highly efficient flue-gas cleaning and safe disposal of the ash.

CFCs, HCFCs (halogenated hydrocarbons), best known under the brand name Freon. Used in cooling systems, among other applications. Freons are ozone-depleting and also contribute to the greenhouse effect. HCFCs, known as "soft freons," have a weaker ozone-depleting effect and a shorter lifetime.

CO₂ See carbon dioxide.

Creosote Organic wood preservative produced from coal tar. Has less of an environmental impact than CCA salts, particularly if its relatively easy destructibility is taken into account.

Dematerialize A way of expressing the aim of shifting from production of goods to production of services, thereby saving resources and sparing the environment (for example, switching from physical mail to e-mail or from a desktop answering machine to TeleSvar on the telephone network).

EMF, electromagnetic fields A basic prerequisite for the functioning of all forms of wireless radio communication (radio waves). Power lines and some electrical devices are surrounded by electromagnetic fields of greater or lesser strength.

Environmental product declaration
Declaration stating a product's content and characteristics that could be of importance for the environment.

Environmental service declaration
Declaration stating a service's content and characteristics that could be of importance for the environment.

ETNO European Public Telecommunication Network Operators' Association. Website: www.etno.be.

Factor 10 Concept whereby industry's and society's processes and products must become ten times more efficient in their use of materials and energy.

Freon See CFCs, HCFCs.

Greenhouse effect Incoming heat from the sun is prevented from radiating out into space by so-called greenhouse gases, the most important of which are CO₂, CFCs, methane and N₂O (laughing gas). Changes in the atmospheric content of greenhouse gases have consequences for the earth's climate.

IIIEE International Institute for Industrial Environmental Economics at Lund University. Website: www.lu.se/IIIEE. There is a direct link to Peter Arnfalk's licentiate thesis on the environmental consequences of videoconferencing and distance working at www.lu.se/IIIEE/it_in_pp/

ISO 14001 The International Organization for Standardization's standard for environmental management systems.

IT (information technology) Used as a synonym for various types of telecommunications and data applications.

IT-Företagen The Association of the Swedish IT and Telecom Industry.

Life-cycle assessment (LCA) A systematic method for calculating and evaluating how various products and services affect the environment during their entire lifetime. A life-cycle assessment follows either the entire life of a product, from raw material to the disposal of waste and residues, or a selected portion of the life cycle.

LPG Liquefied petroleum gas (propane, butane)

Nitrogen oxides – NO_x Combustion of nitrogen produces compounds collectively known as NO_x, nitrogen oxides. Exhaust emissions from vehicles are the largest source of NO_x. Nitrogen compounds contribute to acidification and eutrophication.

Producer responsibility Producer responsibility means that the producer of a product is

responsible for ensuring that the product is disposed of in an environmentally correct manner when its useful life ends.

Implementation of producer responsibility began with the Ecocycle Proposition of 1993, and the principle has been introduced both through legislation and through voluntary undertakings from the industries concerned.

REPA Register The organization that administers the overall issues relating to the collection of packaging materials. The REPA Association administers and distributes fees intended to finance the recycling of packaging.

Ringin A service that enables Telia employees to securely connect a PC to Telia's internal network to facilitate flexible working from the location of their choice.

SLU, the Swedish University of Agricultural Sciences in Uppsala. Website: www.slu.se/.

Sustainable development Long-term sustainable development means satisfying today's needs without jeopardizing the ability of future generations to fulfill their needs.

Swan label Environmental labeling scheme administered by the Swedish Standards Institution (Environmental Labeling section). Specific environmental requirements must be fulfilled before the Swan label can be used on a product.

Telia Centrex Telia's virtual company switchboard in the telephone network.

Telia HomeRun Broadband wireless access to the Internet.

Telia MultiMöte A multi-party conference featuring multimedia functions that support audio, video, and joint manipulation.

Telia TeleMöte A meeting via telephone with several participants who participate by entering a special code.

Telia TeleSvar Telephone answering machine in the telephone network.

Videoconferencing General term for voice and video communication between two or more parties.

Telia's environmental policy – an important part of our brand

Using IT and telecommunications, we help to reduce both our customers' and our own environmental impact and thereby contribute to a sustainable society.

Telia develops services and products that make it simpler and more natural to communicate in an environmentally compatible manner and encourage customers to use Telia's products as part of their environmental efforts.

Telia sets a good example as a Group that is motivated by environmental awareness, as evidenced by its consistent use of its own services and products.

Telia conducts its operations in a resource-efficient manner and with minimal environmental impact.

At Telia, we regard legal requirements as the minimum requirements.

Telia imposes environmental requirements on its suppliers. We also seek to ensure that all the contractors and consultants we employ apply the principles stated in our environmental policy.

All managers at Telia are responsible for environmental work. Telia's CEO bears overall responsibility.

There is an environmental manager at Group level to develop and coordinate environmental work.

Every management group at the company/unit level includes a designated person responsible for ensuring that environmental issues are taken into account in discussions and decisions within the unit. An environmental coordinator is responsible for ongoing monitoring and coordination of environmental work.

All employees at Telia have the requisite knowledge to act responsibly in accordance with the environmental policy.

Environmental objectives and key figures are included in the business plans of the business areas and Group companies.

Telia encourages research, development and the dissemination of information in the area of the environment and its links with our operations.

Our environmental work is characterized by openness towards customers, the media, the public and the authorities.

Environmental work is a process of continuous improvements. The process is conducted and followed up in accordance with ISO 14001.

The environmental policy is reviewed annually and revised as needed.

Dialog/Contacts

The Environmental Report can also be accessed at www.telia.com, where you can continuously keep track of environment-related developments at Telia.

If you have any questions, either prompted by this report or about Telia, IT and the environment in general, you are welcome to contact us by e-mail: environment-telia@telia.se, or by telephone: +46 8-713 10 00.

